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NOTE BY THE SECRETARY-GENERAL

The Secretary-General has the honour to transmit to the members of the Security Council the attached communication, dated 6 October 1995, which he has received from the Director General of the International Atomic Energy Agency (IAEA).

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Annex

Letter dated 6 October 1995 from the Director General of the International Atomic Energy Agency to the Secretary General

Paragraph 8 of resolution 715 (1991), adopted by the Security Council on 11 October 1991, requests the Director General of the International Atomic Energy Agency to submit to the Security Council reports on the implementation of the Agency's plan for future ongoing monitoring and verification of Iraq's compliance with paragraph 12 of resolution 687 (1991). These reports are to be submitted when requested by the Security Council and, in any event, at least every six months after the adoption of resolution 715.

Accordingly, I am requesting you kindly to transmit to the President of the Security Council the enclosed eighth six-month report on the implementation of the Plan. I remain available for any consultations you or the Council may wish to have.

(Signed) Hans BLIX

Appendix

Eighth report of the Director General of the International Atomic Energy Agency on the implementation of the Agency's plan for future ongoing monitoring and verification of Iraq's compliance with paragraph 12 of Resolution 687 (1991)

I. INTRODUCTION

1. On 11 October 1991, the Security Council adopted resolution 715 (1991) approving, inter alia, the plan submitted in document S/22872/Rev.1 and S/22872/Rev.1/Corr.1 by the Director General of the International Atomic Energy Agency (IAEA) for future ongoing monitoring and verification of Iraq's compliance with paragraph 12 of Part C of Security Council resolution 687 (1991) and with the requirements of paragraphs 3 and 5 of resolution 707 (1991). In paragraph 8 of resolution 715, the Security Council requested the Director General of the IAEA to submit to it reports on the implementation of the plan when requested by the Security Council and, in any event, at least every six months after the adoption of resolution 715.

2. The Director General submits herewith the eighth six-month report[1] on implementation of the plan for ongoing monitoring and verification related to Iraq's nuclear capabilities (hereinafter referred to as the Plan).

II. IRAQ'S PAST NUCLEAR WEAPONS PROGRAMME

3. As indicated in paragraph 12 of the latest report of the Director General to the Security Council,[2] a detailed analysis of the documents seized in Iraq in September 1991 in the course of the sixth IAEA inspection revealed the absence of documentation concerning the progress of Iraq's covert nuclear programme - Petrochemical Project 3 (PC3) - post-dating the progress report for the period 1 January - 31 May 1990 of the Al Atheer project. This gave rise to uncertainties regarding PC3 activities in the period which preceded the Gulf War, i.e., between June 1990 and mid-January 1991. Furthermore, none of the seized documents contained information on gas centrifuge enrichment research and development, except for indications that it had been started in mid-1987 with the transfer to gas centrifuge enrichment programme of staff who had been working on gaseous diffusion.

4. Until recently, the Iraqi explanation for the absence of relevant documentation on these two aspects was that the invasion of Kuwait had brought all IAEC activities to a virtual halt and that the centrifuge enrichment project was outside PC3 and its documentation handling would have been separated.

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1 The Director General has so far submitted seven reports, circulated on 15 April 1992, as S/23813; on 28 October 1992, as S/24722; on 19 April 1993, as S/25621; on 3 November 1993, as S/26685; on 22 April 1994, as S/1994/490; on 10 October 1994, as S/1994/1151; and on 11 April 1995, as S/1995/287, supplemented on 21 July, with S/1995/604.

2 See document S/1995/287 of 11 April 1995

5. As discussed below, recent events have led to the provision by Iraq of hundreds of thousands of pages of documents relating to activities of PC3 and to Iraq's centrifuge enrichment programme, as well as to the other aspects of its covert nuclear weapons programme.

6. Following the arrival in Jordan on 8 August 1995 of General Hussein Kamel, the former Iraqi Minister of Industry and Military Industrialisation, the Director General of the IAEA was invited by the Iraqi Government to come to Baghdad or to send an IAEA delegation in order to receive information concerning Iraq's past nuclear programme, allegedly previously withheld at the instruction of General Hussein Kamel.

7. An IAEA delegation travelled to Baghdad and held talks with the Iraqi authorities from 17 to 20 August. In addition to providing new details on some aspects of their past nuclear programme, Iraqi officials provided information and supporting documents on a hitherto undisclosed project said to have been ordered by General Hussein Kamel shortly after the invasion of Kuwait in August 1990. According to Iraqi officials, the project consisted of a crash programme which was launched in September 1990 to extract and further enrich the highly enriched uranium (HEU) contained in safeguarded research reactor fuel at the Tuwaitha site and thus to accelerate the availability of weapons-grade material for the fabrication of a nuclear device. Had the programme been completed, this operation could have provided enough material for such a device in a shorter time than would have been necessary under Iraq's covert programme to enrich natural uranium.

8. With a view to delaying as long as possible detection by the IAEA of the diversion of the safeguarded fuel, the extraction operation had been ordered to start immediately after the twice-yearly safeguards inspection, the next of which was scheduled for November 1990 and was to be concluded before the next inspection, which was expected to take place six months later. The Iraqi officials stated that the manufacturing, assembling and testing of the equipment needed to extract the uranium from the safeguarded fuel was completed in late January 1991. As it turned out, the extraction process itself was never begun. The damage caused by the coalition air raids on Tuwaitha and other relevant facilities made further work on the project impossible. The first post-war inspection mission in Iraq in May 1991 fully accounted for the safeguarded reactor fuel confirming that none of the HEU contained in the research reactor fuel, was used for the recently declared crash programme.

9. In addition to disclosing the existence and scope of the crash programme, information was provided to the IAEA by Iraq in August 1995 concerning activities of PC3 in the second half of 1990, as well as details on other aspects of their past nuclear programme, as described below:

a. An oral description was given of the progress made by the weaponization team of PC3, responsible for the design and fabrication of nuclear weapons, during the second half of 1990. This included an explanation of the contribution by the Al Qa Qaa State Establishment in the development of the implosive package. To substantiate their statements, Iraqi officials provided a copy of the progress report of the weaponization team, covering the period from 1 June 1990 to 7 June 1991, which had been issued on 10 September 1991. This detailed document of 198 pages is particularly important since it relates to a period of time not covered by the documents seized by the sixth IAEA inspection team in September 1991 (see paragraph 3 above). The report, which has already been translated, indicates that work on

weaponization in Al Atheer and in Tuwaitha continued through mid-January 1991, and that post-war activities were concentrated on the salvaging of equipment.

b. Iraqi officials finally confirmed, as the IAEA has long believed, that the centrifuge enrichment program had been carried out in the so-called Engineering Design Centre (Rashdiya), located in the northern suburbs of Baghdad, and not in Tuwaitha as previously declared. It was also stated that some limited work had continued, at Rashdiya during 1988/1989 which had led to the successful development of a gas diffusion barrier. This latter activity - said to have been discontinued in 1989 - is unlikely to have had any practical consequence for the nuclear weapons programme, but is indicative of the capabilities of Iraqi scientists and engineers and of their perseverance in the face of repeated failures.

10. On 20 August 1995, just prior to the departure of the IAEA delegation from Baghdad, Iraqi authorities announced the discovery of thousands of documents, and several tons of metals and other materials, on a farm said to be owned by the family of General Hussein Kamel. The documents were transferred to the premises of the Baghdad Monitoring and Verification Centre (BMVC), where a joint IAEA/UNSCOM team, composed of linguists and experts in the various disciplines, completed in three weeks an inventory of all of the documents, sorted, according to their subject, into four categories - nuclear, chemical, biological and missiles. The documentary material, which included technical records, drawings, suppliers catalogues and extracts from scientific and technical publications, amounted to some 680,000 pages, of which some 80% related to Iraq's past nuclear programme. After having been inventoried, the nuclear-related documents were removed from the BMVC to IAEA Headquarters in Vienna. In order to facilitate their evaluation all documents are being transferred onto computer compatible media to allow for computer-assisted analysis of the text. The transfer is expected to be completed by the end of October 1995. Although it has not yet been physically possible to conduct more than a cursory review of these documents, they touch upon many aspects of the covert nuclear weapons programme, including numerous technical reports on the centrifuge enrichment programme which are of particular interest to the IAEA to verify the completeness of the IAEA's knowledge in this area (see paragraph 3 above).[3]

11. The metals and other material were also transported to the BMVC, where samples were taken; analyses to assess their relevance to Iraq's programmes for weapons of mass destruction are now underway.

12. Following the talks in Baghdad the IAEA team travelled to Jordan to meet with General Hussein Kamel. His detailed description of the past

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[3] As indicated in paragraph 11 of the previous report to the Council (S/1995/287), the IAEA has never accepted as credible repeated Iraqi statements that no documents relevant to the past nuclear weapons programme, other than those confiscated during IAEA-6, were any longer available as all of them had been destroyed. While the large amount of documents provided by Iraqi authorities on 20 August 1995 proves the correctness of the IAEA convictions, the IAEA continues to be persuaded that complete documentation of Iraq's past nuclear weapons programme still exists somewhere in Iraq. Efforts will therefore continue to obtain access to all documents relevant to the programme, as required under paragraph 3 ii) of the Security Council resolution 707 (1991) and paragraphs 3 and 5 of resolution 715 (1991).

covert nuclear weapons programme provided useful information. The possibility of further contacts and discussion was left open.

13. The sheer magnitude of the documentation provided by Iraq makes it impossible, at this stage, to draw definitive conclusions as to their content and implications. It is only possible to say that, of the information which has been reviewed and analysed to date, nothing suggests that a change is warranted in the IAEA's conclusion that Iraq's nuclear weapons programme has been, for all practical purposes, destroyed, removed or rendered harmless.

14. However, it is clear even at this stage that Iraq's crash programme to extract weapons-grade material from safeguarded reactor fuel constitutes an additional violation of its safeguards agreement with the IAEA. Equally, Iraq's failure until now to declare this crash programme and other weapons-related activities and to turn over to the IAEA all nuclear-related documents and materials clearly constitute violations of Iraq's obligations under the relevant Security Council resolutions.

III. IMPLEMENTATION OF THE PLAN

A. INSPECTION ACTIVITIES

15. As a consequence of the events described in paragraphs 5-14 above, an ad hoc inspection mission - IAEA-28 - of IAEA inspectors, assisted by experts in centrifuge and weapon technologies provided by Member States, was sent to Iraq from 9 to 19 September 1995 to follow up on the new information received by the IAEA. A detailed report on IAEA-28 is being prepared and will be transmitted to the Council as soon as possible. However, the following provides highlights of the IAEA-28 mission's findings:

a. For the first time, it was acknowledged by Iraq that the activities carried out at first at Tuwaitha and later at Al Atheer had been aimed at the production of a nuclear device and not only to the definition of what was required to produce it, as had previously been asserted by Iraq. Key documentation on Iraq's design of a nuclear device was provided to the IAEA.

b. The involvement of the Al Qa Qaa State Establishment in support of the development of the implosion package was for the first time acknowledged by Iraq, and declared to have begun in 1987.

c. The crash programme which was initiated in the late summer of 1990 had been planned to comprise the chemical processing of both unirradiated and irradiated research reactor fuel to recover the highly enriched uranium (HEU) from the fuel; the re-enrichment of part of the HEU through the use of a 50-machine centrifuge cascade which was to have been specially constructed for the purpose; the conversion of the HEU chemical compounds to metal. Had the HEU recovery and enrichment process been successful, it could have resulted in the availability by the end of 1991 of a quantity of HEU sufficient to manufacture a single low-yield nuclear device.

d. Also planned were measures such as the fabrication of the implcsion package and the selection and construction of a test site and studies of a delivery system. Assembly of the device could not have been possible, according to the estimate of the Iraqis scientists, before the end of 1992. The validity of this estimate

was one of the issues addressed during IAEA-28 and is currently under assessment by the IAEA with the assistance of nuclear weapons experts.

e. Detailed explanations were provided by Iraqi authorities of centrifuge related activities in the buildings of the Engineering Design Centre (Rashdiya), but no convincing rationale was offered for Iraq's continued concealment, even after the commencement in July 1993 of the high-level technical talks, of the role played by the Engineering Design Centre in the covert nuclear programme.

f. No evidence has as of yet been found of practical progress towards the establishment of the 50-machine centrifuge enrichment cascade, although it appears that external assistance was to have been relied upon for the procurement and production of the carbon fibre cylinder components of the centrifuge rotors.

g. Wide ranging information was obtained which provided clarification and confirmation of various aspects of the procurement network established to support the centrifuge enrichment project.

h. In spite of the obvious progress in openness and transparency shown by a number of Iraqi staff participating in the technical discussions, there is still a tendency to misrepresent the expertise and competence of Iraqi scientists and engineers both in the areas of programme co-ordination and in some specific R & D activities.

i. Initial indications do not appear to conflict with the IAEA's assessment of the scope and status of Iraq's clandestine programme to acquire nuclear weapon capability, as set out in the IAEA's seventh semi-annual report. However, it would be premature to draw any definitive conclusions pending analysis of the recently acquired documentation, samples and other information.

B. ONGOING MONITORING AND VERIFICATION

16. Events described in paragraphs 5-14 above, although commanding a shift in priority of other activities, did not detract from the full implementation of the IAEA Plan. In the period under review, resident inspectors of the Nuclear Monitoring Group (NMG) have continued their work in the field according to schedule, with the support of the staff of the Baghdad Monitoring and Verification Centre (BMVC) and in coordination with the chemical, biological and missiles groups of the Special Commission. 105 inspections - most of these unannounced - have been conducted at some 51 sites/facilities, 11 of which were visited for the first time.

17. The sixth radiometric survey of Iraq's main water bodies was completed in April 1995. Samples of water, sediment and biota were taken at 15 sites selected from the 52 locations for which baseline data had been established in the original survey completed in November 1992. Twelve additional locations along the Euphrates watercourse, close to the Al Qaim phosphate fertiliser plant were sampled. The Al Qaim phosphate plant was the facility where large quantities of uranium were extracted from uranium bearing Iraqi phosphate ores originating from Iraq's mine at Akashat. The uranium extraction and concentration plant was totally destroyed during the war. The analysis of water and sediment samples taken along the river in the proximity of the Al Qaim works will be used to determine the practical capability to detect a facility of this kind and verify how far downstream signatures from the plant persist. It will also provide a baseline against

which future analyses at this specific site will be compared to verify the absence of uranium activity associated with phosphate fertiliser production.

18. The level of practical cooperation by Iraqi counterparts in facilitating and expediting IAEA's field work continues to be high.

C. PROVISION OF INFORMATION BY IRAQ

19. The reporting requirements stipulated in paragraph 22 and Annex 2 of the Plan are being fulfilled regularly at six-month intervals by the Iraqi authorities.

20. In July the semi-annual update was provided on facilities, installations and sites where nuclear activities of any kind have been carried out or which in IAEA's judgement could be suitable to host nuclear activities. The update is also required to include sites and facilities where material and equipment identified in the Annex 3 of the IAEA's Plan are located. In their July report the Iraqi authorities provided detailed information on 29 additional facilities bringing the total number of sites declared by Iraq under paragraph 22 of the Plan to 169. The large number of documents provided by Iraq on 20 August 1995 may contain information on hitherto undeclared sites and facilities which had been connected with the covert nuclear programme. In this case, Iraq will have to submit detailed information and the IAEA will decide if the inclusion of these sites or facilities in the monitoring regime is warranted.

D. RELEASE, RELOCATION AND CHANGE OF THE USE OF EQUIPMENT, MATERIALS AND FACILITIES

21. Through the channel of the Iraqi National Monitoring Directorate (NMD) the IAEA receives requests for the release of - or for the permission to relocate - equipment and materials, as well as requests for permission to change the use of monitored buildings. All NMD requests are processed in consultation with the Special Commission. Since the start of the implementation of the IAEA Plan (August 1994) some 20 such requests have been received and, in the period under review, 12 have been approved. Items for which release, relocation or change of use is approved remain subject to ongoing monitoring and verification at a frequency commensurate with their significance.

IV. SUMMARY

22. The IAEA Plan for monitoring and verification of Iraq's compliance with the relevant Security Council resolutions continues to be implemented by resident inspectors of the Nuclear Monitoring Group with the assistance of, and in full coordination with, the Special Commission. During the period under review the Nuclear Monitoring Group conducted 105 inspections at some 51 facilities, 11 facilities of which were not previously inspected.

23. Shortly after the arrival in Jordan of General Hussein Kamel, the former Minister of Industry and Military Industrialisation, an IAEA delegation was invited to Baghdad to receive information on the past Iraqi covert nuclear programme, allegedly withheld at the instruction of General Hussein Kamel. Following this invitation a series of technical meetings were held in Baghdad with the Iraqi authorities from 17 to 20 August 1995 and information and supporting documents were given by the Iraqi authorities to the IAEA delegation. The most important information

concerned the progress made in Iraq in their covert nuclear programme during the period immediately preceding the Gulf War, i.e. from June 1990 to the outbreak of the conflict (17 January 1991).

24. According to Iraqi officials a crash programme was launched in September 1990 to extract and further enrich the enriched uranium contained in the safeguarded research reactor fuel at the Tuwaitha site and to use the weapon-grade material resulting form this crash programme to accelerate the development of a nuclear device. Had this programme been completed, it could have provided enough material for a nuclear device in a shorter time than would have been necessary under Iraq's covert programme to enrich natural uranium. As it turned out, the chemical operations to extract the enriched uranium from the research reactor fuel was never begun since the equipment assembled to implement the programme was destroyed by coalition air raids in the first days of the war. All of the safeguarded research reactor fuel was accounted for by the inspectors of the IAEA-1 in May 1991.

25. Information was also provided by Iraq along with supporting documents on the progress made in the same time period by the weaponization team in Al Atheer. Assessment of the documents is underway.

26. On 20 August prior to the departure of the IAEA delegation from Baghdad, Iraqi authorities announced the discovery of thousands of documents and several tons of metals and other materials on a farm said to be owned by the family of General Hussein Kamel. The documents and materials were removed to the Baghdad Monitoring and Verification Centre where, in the course of three following weeks, a joint IAEA\UNSCOM team completed a preliminary scanning of all documents, sorting them according to their subject into four categories - nuclear, biological, chemical, and missiles. After this preliminary inventory the nuclear related documents were removed to IAEA Headquarters in Vienna for review and analysis. At the same time, samples of metals and other material were taken and their analysis is underway.

27. Following talks in Baghdad, the IAEA team met in Jordan with General Hussein Kamel. His statements on Iraq's past nuclear weapons programme provided useful information.

28. A follow up inspection mission - IAEA-28 - took place from 9 to 19 September 1995 with the participation of experts in centrifuge and weapons-related technologies provided by Member States. The report of this inspection is in preparation.

29. Clearly, given the sheer magnitude of the documentation provided in August by Iraq it would be premature at this stage to draw conclusions as to their detailed content and implications. There is no certainty, of course that all nuclear relevant documents have been delivered even now.

30. What is clear at this stage is that Iraq's crash programme to extract weapons-grade material from the safeguarded reactor fuel constitutes an additional violation of its safeguards agreement with the IAEA and Iraq's failure, until now, to declare this programme and other weapons-related activities and to turn over to the IAEA all nuclear-related documents and materials constitutes a violation of Iraq's obligations under the relevant Security Council resolutions.